

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1 to 43. (Canceled).

44. (New) A compact drive, comprising:
at least three drive components;
a central housing part, each drive component surrounded by the central housing part; and
at least one housing cover of the respective drive component to form a specific housing.
45. (New) The compact drive according to claim 44, wherein the drive components include at least one of (a) an electric motor, (b) a gear unit and (c) an electronic circuit.
46. (New) The compact drive according to claim 45, wherein the electronic circuit includes a frequency converter.
47. (New) A compact drive, comprising:
at least three drive components including an electric motor; and
a central housing part, a stator of the electric motor detachably connected to the central housing part.
48. (New) The compact drive according to claim 47, wherein the drive components include at least one of (a) a gear unit and (b) an electronic circuit.
49. (New) The compact drive according to claim 48, wherein the electronic circuit includes a frequency converter.
50. (New) The compact drive according to claim 47, wherein the stator is detachably connected to the central housing part by a clamping joint.

51. (New) A compact drive, comprising:
an electric motor;
a brake;
a gear unit; and
a frequency converter, an output shaft of the gear unit and a rotor shaft positioned in parallel to each other, and a shaft-center distance determined by at least one gear stage; a first gear stage including a first toothed member connected to the rotor shaft and a second toothed member, which engages with the first toothed member and is connected to an intermediate shaft; the brake, including at least one brake-rotor shaft, integrated in a housing of the compact drive, the brake-rotor shaft parallel to the rotor shaft, the brake-rotor shaft connected to a toothed member, which engages with the second toothed member, and an electronics compartment for the frequency converter not being sealed with respect to a compartment of the electric motor.

52. (New) A compact drive, comprising:
an electric motor;
a brake;
a gear unit; and
a frequency converter, an output shaft of the gear unit and a rotor shaft positioned in parallel to each other, and a shaft-center distance determined by at least one gear stage, a first gear stage including a first toothed member connected to the rotor shaft, and a second toothed member, which engages with the first toothed member and is connected to an intermediate shaft, the brake, including at least one brake-rotor shaft, integrated in a housing of the compact drive, the brake-rotor shaft parallel to the rotor shaft, the brake-rotor shaft connected to a toothed member, which engages with the second toothed member, and the rotor shaft and at least one shaft of the gear unit supported in a same housing part.

53. (New) The compact drive according to claim 52, wherein the rotor shaft and the at least one shaft of the gear unit are supported in a central housing part.

54. (New) The compact drive according to claim 51, wherein the brake is arranged as an electromagnetically operable brake.

55. (New) The compact drive according to claim 51, wherein the brake is arranged as a piezoelectrically operating brake.

56. (New) The compact drive according to claim 51, wherein at least one gear stage is arranged as a spur-gear stage.

57. (New) The compact drive according to claim 51, wherein the gear stage is arranged a variable transmission

58. (New) The compact drive according to claim 57, wherein the variable transmission includes one of (a) continuously variable, wide-belt transmission and (b) a chain drive.

59. (New) The compact drive according to claim 51, wherein the electric motor is arranged as at least one of (a) a synchronous motor and (b) a permanent-magnet motor.

60. (New) The compact drive according to claim 51, wherein the frequency converter is positioned laterally with respect to the rotor shaft.

61. (New) The compact drive according to claim 51, wherein a gear region is sealed with respect to the environment and a region of the motor, as well as with respect to an electronics compartment.

62. (New) The compact drive according to claim 51, wherein a gear region, a region of the motor, and an electronics compartment are at approximately the same temperature.

63. (New) The compact drive according to claim 51, wherein the motor includes a sensor.

64. (New) The compact drive according to claim 63, wherein the sensor includes a resolver stator and a resolver rotor.

65. (New) The compact drive according to claim 51, wherein the rotor shaft and at least one shaft of the gear unit are supported in a same housing part.

66. (New) The compact drive according to claim 61, wherein a single shaft-sealing ring is arranged on the rotor shaft.

67. (New) The compact drive according to claim 51, wherein three shaft-sealing rings are arranged on an output shaft.

68. (New) The compact drive according to claim 51, wherein the housing includes housing parts and housing covers.

69. (New) The compact drive according to claim 51, wherein the housing includes one of (a) one and (b) two central housing parts and one housing cover.

70. (New) The compact drive according to claim 51, wherein the housing does not have any cooling fins or cooling fingers.

71. (New) The compact drive according to claim 51, wherein at least one of (a) a housing cover is connected to an electronic circuit and (b) an electronic circuit is integrated in the housing cover.

72. (New) The compact drive according to claim 71, wherein the housing cover, including the electronic circuit, is electrically connected to the rest of the compact drive by an electric plug-and-socket connector.

73. (New) The compact drive according to claim 71, wherein the housing cover, including the electronic circuit, is electrically connected to the rest of the compact drive by an electric plug-and-socket connector adapted for quickly and easily replacing the housing cover in the event of maintenance work or repairs.

74. (New) The compact drive according to claim 51, wherein a housing cover for an electronic circuit is detachably connectible to a central housing part, a heat barrier being provided in the connection.

75. (New) The compact drive according to claim 74, wherein the heat barrier is arranged as one of (a) a seal and (b) a plastic housing part.

76. (New) The compact drive according to claim 51, wherein a housing cover for an electronic circuit is oriented so that a normal direction is perpendicular to an output shaft.

77. (New) The compact drive according to claim 51, further comprising electrical connection terminals for load lead arranged on a housing part of the compact drive.

78. (New) The compact drive according to claim 51, further comprising at least one electronic circuit for one of (a) modulating and (b) demodulating information upon load leads.

79. (New) The compact drive according to claim 51, further comprising at least one electronic circuit for one of (a) modulating and (b) demodulating information upon load leads in accordance with one of (a) a Powerline and (b) an FSK method.

80. (New) The compact drive according to claim 51, wherein a gear stage furthest to an output side is arranged as a right-angle gear stage.

81. (New) The compact drive according to claim 51, wherein a gear stage furthest to an output side includes one of (a) a worm-gear stage (b) a bevel-gear stage and (c) spiroid-gear stage.

82. (New) The compact drive according to claim 51, wherein the brake is arranged as an energy-storage mechanism.

83. (New) The compact drive according to claim 51, wherein the brake includes one of (a) a flywheel and (b) a rotating mass.

84. (New) The compact drive according to claim 51, further comprising at least one sensor connected to an electronic circuit, in response to mounting of a housing cover, the sensors positionable such that values of physical variables of a motor region are determinable.

85. (New) The compact drive according to claim 84, wherein the physical variables include at least one of (a) temperature, (b) angular speed of the rotor and (c) angle of the rotor.

86. (New) The compact drive according to claim 51, wherein an electronic circuit is arranged to at least one of (a) monitor, (b) control and (c) regulate a temperature of a central housing part.

87. (New) The compact drive according to claim 51, wherein a braking resistor and lubricant are connected to allow effective heat conduction, so that the lubricant is at least one of (a) heatable and (b) warmable by the braking resistor.

88. (New) The compact drive according to claim 87, wherein a heat-transfer resistance from the braking resistor to the lubricant is less than a heat-transfer resistance the braking resistor to the environment.

89. (New) The compact drive according to claim 88, wherein the lubricant includes a gear lubricant agitated during operation.

90. (New) The compact drive according to claim 87, a heat-transfer resistance from a stator winding to the lubricant is less than a heat-transfer resistance from the stator winding to the environment.

91. (New) The compact drive according to claim 90, wherein the lubricant includes a gear lubricant agitated during operation.

92. (New) The compact drive according to claim 87, wherein the braking resistor is arranged in at least one of (a) a recess, (b) a depression and (c) a pocket of the central housing part.

93. (New) The compact drive according to claim 87, wherein the braking resistor extends into the gear region such that a housing pocket is arranged closer to an input side than to an output side.

94. (New) The compact drive according to claim 51, wherein at least one of (a) an electronic circuit includes an electronic type label and (b) the electronic circuit is connected to one of (a) a bus and (b) a field bus.

95. (New) The compact drive according to claim 51, wherein a core assembly of a stator of the motor, including the stator windings, is supported in a central housing part.

96. (New) The compact drive according to claim 51, wherein a core assembly of a stator of the motor, including the stator windings, is detachably connected in a central housing part.

97. (New) The compact drive according to claim 51, wherein a core assembly of a stator of at least one of (a) an angular-position sensor and (b) an angular-speed sensor is detachably connected in a central housing part.

98. (New) The compact drive according to claim 51, wherein a core assembly includes teeth one of (a) onto which stator windings are slid and (b) around which the stator windings are wound.

99. (New) An axially offset, right-angle gear stage for a compact drive, comprising:

a central housing part, each drive component surrounded by the central housing part and at least one housing cover of a respective drive component to form a specific housing.

100. (New) The gear stage according to claim 99, wherein the right-angle gear stage includes a wheel and a pinion engaging with the wheel, at least one of (a) the wheel including gear teeth on a front side and (b) a pinion having a cylindrical contour at an outer periphery.

101. (New) The gear stage according to claim 99, wherein the gear stage is arranged as spiroid gear stage.

102. (New) The gear stage according to claim 99, wherein the gear stage is arranged as a spiroid gear stage in which a pinion axis does not intersect a wheel axis and is oriented perpendicularly to it, an axial offset less than a pitch-circle radius of gear teeth of the wheel.

103. (New) A method for manufacturing a drive unit that includes at least one electric motor and a central housing part, comprising:

initially machining the central housing part; and

subsequently introducing a stator of the electric motor into the central housing part and detachably connecting the stator to the central housing part.

104. (New) The method according to claim 103, wherein the central housing part is initially machined by a cutting tool.

105. (New) The method according to claim 103, wherein the stator is detachably connected to the central housing part by a clamping joint.